

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1 (Original): A semiconductor device, comprising:

a thin film transistor formed on an insulating surface of a substrate; and
a diamond-like carbon film formed on a back surface of the substrate.

Claim 2 (Original): A semiconductor device according to claim 1, wherein the substrate is a quartz substrate.

Claim 3 (Original): A device according to claim 1, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 4 (Original): A device according to claim 1, wherein said semiconductor device is an active matrix type display device having a pixel region and a driver region on the substrate.

Claim 5 (Original): A device according to claim 1, wherein said semiconductor device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus having a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 6 (Original): A semiconductor device, comprising:

a diamond-like carbon film formed on an insulating surface of a substrate;
an underlayer film formed on the diamond-like carbon film; and
a thin film transistor formed on the underlayer film.

Claim 7 (Original): A device according to claim 6, wherein the substrate is a quartz substrate.

Claim 8 (Original): A device according to claim 6, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 9 (Original): A device according to claim 6, wherein said semiconductor device is an active matrix type display device having a pixel region and a driver region on the substrate.

Claim 10 (Original): A device according to claim 6, wherein said semiconductor device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus having a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 11 (Currently Amended): A semiconductor device, comprising:
a thin film transistor formed over [[an]] a substrate having an insulating surface;
an interlayer insulating film formed over the thin film transistor; and
a diamond-like carbon film formed on the interlayer insulating film.

Claim 12 (Original): A device according to claim 11, further comprising a transparent conductive film formed over the diamond-like carbon film.

Claim 13 (Original): A device according to claim 11, wherein the diamond-like carbon film has a thickness of 5 to 100 nm.

Claim 14 (Original): A device according to claim 11, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 15 (Original): A device according to claim 11, wherein said semiconductor device is an active matrix type display device having a pixel region and a driver region on the substrate.

Claim 16 (Original): A device according to claim 11, wherein said semiconductor device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus having a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 17 (Original): A method of manufacturing a semiconductor device, comprising the steps of:

forming a thin film transistor on an insulating surface of a substrate; and
forming a diamond-like carbon film on a back surface of the insulating substrate.

Claim 18 (Original): A method according to claim 17, wherein the substrate is a quartz substrate.

Claim 19 (Original): A method according to claim 17, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 20 (Original): A method according to claim 17, wherein said semiconductor device is an active matrix type display device having a pixel region and a driver region on the substrate.

Claim 21 (Original): A method according to claim 17, wherein said semiconductor device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus having a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 22 (Original): A method of manufacturing a semiconductor device, comprising the steps of:

- forming a diamond-like carbon film on an insulating surface of a substrate;
- forming an underlayer film on the diamond-like carbon film; and
- forming a thin film transistor on the underlayer film.

Claim 23 (Original): A method according to claim 22, wherein the substrate is a quartz substrate.

Claim 24 (Original): A method according to claim 22, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 25 (Original): A method according to claim 22, wherein said semiconductor device is an active matrix type display device having a pixel region and a driver region on the substrate.

Claim 26 (Original): A method according to claim 22, wherein said semiconductor device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus having a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 27 (Original): A method of manufacturing a semiconductor device, comprising the steps of:

- forming a thin film transistor over a substrate having an insulating surface;
- forming an interlayer insulating film covering the thin film transistor; and
- forming a diamond-like carbon film over the interlayer insulating film.

Claim 28 (Original): A method according to claim 27, further comprising the step of forming a transparent conductive film on the diamond-like carbon film.

Claim 29 (Original): A method according to claim 27, the diamond-like carbon film has a thickness of 10 to 100 nm.

Claim 30 (Original): A method according to claim 27, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 31 (Original): A method according to claim 27, wherein said semiconductor device is an active matrix type display device having a pixel region and a driver region on the substrate.

Claim 32 (Original): A method according to claim 27, wherein said semiconductor device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus having a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 33 (New): An electronic device comprising:
a thin film transistor formed over a first insulating surface of a substrate; and
a diamond-like carbon film formed over a second insulating surface of the substrate,
wherein the first insulating surface is opposite to the second insulating surface.

Claim 34 (New): A device according to claim 33, wherein the substrate is a quartz substrate.

Claim 35 (New): A device according to claim 33, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 36 (New): A device according to claim 33, wherein said electronic device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a

goggles-type display, a player apparatus comprising a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 37 (New): An electronic device comprising:
a diamond-like carbon film formed over an insulating surface of the substrate;
an underlayer film formed on the diamond-like carbon film; and
a thin film transistor formed on the underlayer film.

Claim 38 (New): A device according to claim 37, wherein the substrate is a quartz substrate.

Claim 39 (New): A device according to claim 37, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 40 (New): A device according to claim 37, wherein said electronic device is selected from the group consisting of a personal computer, a video camera, a mobile computer., a goggles-type display, a player apparatus comprising a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 41 (New): A method of manufacturing an electronic device, comprising the steps of:

forming a thin film transistor over a first insulating surface of a substrate; and
forming a diamond-like carbon film over a second insulating surface of the insulating substrate,

wherein the first insulating surface is opposite to the second insulating surface.

Claim 42 (New): A method according to claim 41, wherein the substrate is a quartz substrate.

Claim 43 (New): A method according to claim 41, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 44 (New): A method to claim 41, wherein said electronic device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus comprising a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 45 (New): A method of manufacturing an electronic device, comprising the steps of:

- forming a diamond-like carbon film over an insulating surface of a substrate;
- forming an underlayer film on the diamond-like carbon film; and
- forming a thin film transistor on the underlayer film.

Claim 46 (New): A method according to claim 45, wherein the substrate is a quartz substrate.

Claim 47 (New): A method according to claim 45, wherein the diamond-like carbon film has a specific resistance of 10^7 to 10^{14} Ωcm .

Claim 48 (New): A method to claim 45, wherein said electronic device is selected from the group consisting of a personal computer, a video camera, a mobile computer, a goggles-type display, a player apparatus comprising a recording medium, a digital camera, a front type projector, and a rear type projector.

Claim 49 (New): A device according claim 1, wherein the buffer layer comprises at least one of silicon, silicon carbide, and silicon nitride.

Claim 50 (New): A device according claim 6, wherein the buffer layer comprises at least one of silicon, silicon carbide, and silicon nitride.

Claim 51 (New): A method according claim 17, wherein the buffer layer comprises at least one of silicon, silicon carbide, and silicon nitride.

Claim 52 (New): A method according claim 22, wherein the buffer layer comprises at least one of silicon, silicon carbide, and silicon nitride.

Claim 53 (New): A method according claim 41, wherein the buffer layer comprises at least one of silicon, silicon carbide, and silicon nitride.

Claim 54 (New): A method according claim 45, wherein the buffer layer comprises at least one of silicon, silicon carbide, and silicon nitride.

Claim 55 (New): A device according claim 1, wherein the buffer layer has a thickness of 80 to 200 nm.

Claim 56 (New): A device according claim 6, wherein the buffer layer has a thickness of 80 to 200 nm.

Claim 57 (New): A method according claim 17, wherein the buffer layer has a thickness of 80 to 200 nm.

Claim 58 (New): A method according claim 22, wherein the buffer layer has a thickness of 80 to 200 nm.

Applicant : Takeshi Fukada
Serial No. : New Divisional Application
Filed : September 8, 2003
Page : 11 of 12

Attorney's Docket No.: 07977-256002 / US3870D1

Claim 59 (New): A method according claim 41, wherein the buffer layer has a thickness of 80 to 200 nm.

Claim 60 (New): A method according claim 45, wherein the buffer layer has a thickness of 80 to 200 nm.